

Weight cycling linked to increased sleep problems in women

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Women with a history of weight cycling - losing and regaining 10 pounds or more, even once - have increased rates of insomnia and other sleep problems, reports a study in *The Journal of Cardiovascular Nursing*.

"History of [weight cycling](#) was prospectively associated with several measures of poor sleep, including short sleep duration, worse sleep quality, greater insomnia, greater sleep disturbances, and greater daytime dysfunction among diverse US women across various life stages," according to the new research by Brooke Aggarwal, EdD, MS, FAHA, of Columbia University Vagelos College of Physicians and Surgeons, New York, and colleagues.

Weight cycling predicts shorter, poorer-quality sleep and higher sleep apnea risk

The researchers analyzed data on 506 women, average age 37 years, enrolled in an ongoing American Heart Association-funded "Go Red for Women" research project. The women represented every stage of adult life, including childbearing,

premenopausal, menopausal, and postmenopausal. About 60 percent of the women identified themselves as a racial/ethnic minority.

Seventy-two percent of the women reported one or more episodes of weight cycling, defined as losing or gaining at least 10 pounds (excluding pregnancy). History of weight cycling was evaluated for associations with a wide range of sleep problems, both at the time of study entry and at a one-year follow-up visit. The analyses adjusted for other factors known to affect women's weight [history](#), including pregnancy history and menopausal status.

At both times, sleep problems were more likely for women with any history of weight cycling. Each additional episode of weight cycling was associated with shorter sleep time, poorer sleep quality, longer time to falling asleep, more severe insomnia, more sleep disturbances, less-efficient sleep, and more frequent use of sleep medications.

History of weight cycling also predicted an increased risk of sleep problems at follow-up. After adjustment for other factors, women with even a single episode of weight cycling were at higher risk of shorter sleep duration (less than seven hours), lower scores for sleep quality and efficiency, and longer time to falling asleep (about half an hour or more).

Women with episodes of weight cycling were also five times more likely to score in the high-risk range for developing obstructive sleep apnea (OSA). Patients with OSA have interruptions or other abnormalities of breathing during sleep. Obstructive sleep apnea is an important risk factor for serious health problems, including heart disease and stroke.

Being overweight or obese is a known risk factor for sleep problems. In previous studies in their "Go Red for Women" research cohort at Columbia

University, Dr. Aggarwal and colleagues found that women with a history of weight cycling had increased odds of poor cardiovascular health. The relationship between weight cycling and sleep problems may be "bidirectional"—reflecting the "intricate interplay" between sleep and weight loss/weight maintenance.

The researchers emphasize the need for further studies of how body weight changes across the life span may affect sleep, in men as well as women and across racial/ethnic groups. In the meantime, asking [women](#) about their history of weight cycling might be helpful in identifying their risk for [sleep problems](#), including OSA.

The findings also suggest that maintaining a stable body weight over [time](#) might promote better quality sleep. Dr. Aggarwal and coauthors conclude, "Future research can potentially inform more targeted weight maintenance interventions for sleep health and cardiovascular health promotion."

More information: Vivian Cao et al, History of Weight Cycling Is Prospectively Associated With Shorter and Poorer-Quality Sleep and Higher Sleep Apnea Risk in Diverse US Women, *Journal of Cardiovascular Nursing* (2021). DOI: [10.1097/JCN.0000000000000818](https://doi.org/10.1097/JCN.0000000000000818)

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